



Standard Specification for Piping Fittings of Wrought Carbon Steel and Alloy Steel for Low-Temperature Service¹

This standard is issued under the fixed designation A420/A420M; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

1. Scope*

1.1 This specification² covers wrought carbon steel and alloy steel fittings of seamless and welded construction, covered by the latest revision of ASME B16.9, ASME B16.11, MSS SP-79, MSS SP-83, MSS SP-95, and MSS SP-97. Fittings differing from these ASME and MSS standards shall be furnished in accordance with Supplementary Requirement S58 of Specification **A960/A960M**. These fittings are for use in pressure piping and pressure vessel service at low temperatures.

1.2 Optional supplementary requirements are provided for fittings where a greater degree of examination is desired. When desired, one or more of these supplementary requirements shall be specified in the order.

1.3 This specification is expressed in both inch-pound units and in SI units. However, unless the order specifies the applicable “M” specification designation (SI units), the material shall be furnished to inch-pound units.

1.4 The values stated in either SI units or inch-pound units are to be regarded separately as standard. Within the text, the SI units are shown in brackets. The values stated in each system may not be exact equivalents; therefore, each system shall be used independently of the other. Combining values from the two systems may result in non-conformance with the standard.

2. Referenced Documents

2.1 In addition to those Referenced Documents listed in Specification **A960/A960M**, the following list of standards apply to this specification.

¹ This specification is under the jurisdiction of ASTM Committee **A01** on Steel, Stainless Steel and Related Alloys and is the direct responsibility of Subcommittee **A01.22** on Steel Forgings and Wrought Fittings for Piping Applications and Bolting Materials for Piping and Special Purpose Applications.

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² For ASME Boiler and Pressure Vessel Code applications see related Specification SA-420 in Section II of that Code.

2.2 ASTM Standards:³

A370 Test Methods and Definitions for Mechanical Testing of Steel Products

A960/A960M Specification for Common Requirements for Wrought Steel Piping Fittings

A1058 Test Methods for Mechanical Testing of Steel Products—Metric

2.3 ASME Standards:

B 16.9 Factory-Made Wrought Steel Butt-Welding Fittings⁴

B 16.11 Forged Steel Fittings, Socket-Welding Threaded⁴

Section VIII Division 1, Pressure Vessels⁴

Section IX

2.4 MSS Standards:

MSS SP-25 Standard Marking System for Valves, Fittings, Flanges, and Unions⁵

MSS SP-79 Socket Welding Reducer Inserts⁵

MSS SP-83 Steel Pipe Unions, Socket-Welding and Threaded⁵

MSS SP-95 Swage(d) Nipples and Bull Plugs⁵

MSS SP-97 Integrally Reinforced Forged Branch Outlet Fittings—Socket Welding, Threaded and Buttwelding Ends

2.5 ASNT Standards:

SNT-TC-1A Recommended Practice for Nondestructive Testing Personnel Qualification and Certification⁶

3. Ordering Information

3.1 See Specification **A960/A960M**.

4. General Requirements

4.1 Product furnished to this specification shall conform to the requirements of Specification **A960/A960M**, including any

³ For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

⁴ Available from American Society of Mechanical Engineers (ASME), ASME International Headquarters, Two Park Ave., New York, NY 10016-5990, <http://www.asme.org>.

⁵ Available from Manufacturers Standardization Society of the Valve and Fittings Industry (MSS), 127 Park St., NE, Vienna, VA 22180-4602, <http://www.mss-hq.com>.

⁶ Available from American Society for Nondestructive Testing (ASNT), P.O. Box 28518, 1711 Arlingate Ln., Columbus, OH 43228-0518, <http://www.asnt.org>.

*A Summary of Changes section appears at the end of this standard